

## DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITE DE COOPERATION EN MATIÈRE DE BREVETS (PCT)

(51) Classification internationale des brevets <sup>6</sup> : <b>A61B 8/10</b>		(11) Numéro de publication internationale: - <b>WO 99/34733</b>
<b>A1</b>		(43) Date de publication internationale: 15 juillet 1999 (15.07.99)
(21) Numéro de la demande internationale: PCT/FR99/00040 (22) Date de dépôt international: 12 janvier 1999 (12.01.99) (30) Données relatives à la priorité: 98/00209 12 janvier 1998 (12.01.98) FR (71) Déposant (pour tous les Etats désignés sauf US): CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (C.N.R.S.) [FR/FR]; 3, rue Michel Ange, F-75794 Paris Cedex 16 (FR). (72) Inventeurs; et (75) Inventeurs/Déposants (US seulement): SAÏED, Amena [FR/FR]; 3, rue Fagon, F-75013 Paris (FR). BERGER, Geneviève [FR/FR]; 11, rue Charpentier, F-92340 Bourg-la-Reine (FR). LAUGIER, Pascal [FR/FR]; 51, rue Rennequin, F-75017 Paris (FR). (74) Mandataires: PEAUCELLE, Chantal etc.; Cabinet Armengaud Ainé, 3, avenue Bugeaud, F-75116 Paris (FR).		(81) Etats désignés: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, brevet ARIPO (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), brevet eurasiatique (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), brevet européen (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), brevet OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  Publiée Avec rapport de recherche internationale.

(54) Title: METHOD FOR EXPLORING AND DISPLAYING TISSUES OF HUMAN OR ANIMAL ORIGIN FROM A HIGH FREQUENCY ULTRASOUND PROBE

(54) Titre: PROCÉDE D'EXPLORATION ET DE VISUALISATION DE TISSUS D'ORIGINE HUMAINE OU ANIMALE A PARTIR D'UNE SONDE ULTRASONORE A HAUTE FREQUENCE

## (57) Abstract

The invention concerns a method for exploring and displaying tissues of human or animal origin which consists in: positioning an ultrasound probe (1) carried by a head steered by means of a three-dimensional positioning system (2), in particular computer-controlled, perpendicular to the tissue structure; controlling the probe such that it generates convergent high frequency ultrasound wave beams (of the order of  $\approx 50$  MHz), said waves being focused at a predetermined zone of the tissues, over a penetration distance ranging between 20 and 30 mm; scanning the tissue structure by the computer-controlled (3) positioning system (2), by carrying out parallel acquisition, by the computer (3) of signals reflected by the tissue structure; carrying out various signal processing operations on the data derived from scanning, to improve the reproduction of data and facilitate interpretation thereof by the practitioner.

